

# NOTES ON GUTTA AND CAOUTCHOUC IN THE MALAY PENINSULA.

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Having so recently as last December given the results of my investigations into the origin of Malay *Guttas* and *Rubbers* in a Report to the local Government, I may perhaps be accused of iteration in returning to the subject so soon; but as the matter is one of increasing importance, and as greater publicity will be ensured, and thereby discussion invited, through the pages of the Society's Journal, I have been induced to give the following resumé of what I have hitherto been able to learn about them.

First of all it is necessary to distinguish here between Gutta Percha and Caoutchouc—producing orders.

The trees producing Gutta Percha are all members of the order *Sapotaceæ*, a family which includes many species useful to man, the best known in the Straits being perhaps the Chiko (*Sapota Aceras*.)

The Gutta-producing trees are confined to the genus *Isonandra*, which is limited to 6 species by the authors of the "Genera Plantarum." *Isonandra-Gutta* is the oldest known species and yields what is known in commerce as Gutta Percha in local parlance Gutta Taban.

This tree is occasionally met with in Singapore and in Johor in the Pulai hills, and I have met with it in Perak on Gunong Meru, Gunong Sayong, Gunong Panjang, Gunong Bubo, Gunong Hijau and Bujang Malacca, where large trees of 80 to 120 feet are met with, but owing to the reckless way in which the Gutta is collected, it is fast disappearing, and every succeeding year the collectors are obliged to go further from their kampongs in search of it.

The mode of collecting the milk is as follows. A tree not less than 3 feet in circumference at three feet from the ground is selected, the larger the tree the greater the quantity of Gutta obtainable, it is then cut down at 5 or 6 feet from the ground, and as soon as it is felled the top is taken off where the principal stem is about 3 or 4 inches in diameter; this the natives say causes the trunk to yield a larger quantity of milk; it is then ringed at intervals of 5 to 15 inches with *golo's*, and the milk collected in co-

coanut shells, palm leaves or any thing available, and then boiled for an hour, otherwise it becomes brittle and useless. Its average price per pikul (133 lbs) is from \$45 to \$50, according to quality.

The only other Gutta Percha that I have seen is *Gutta Puteh* the product of *I. macrophylla*; the tree differs from *I. Gutta* in the shape and colour of its leaves, and is readily recognized at a distance by the Perak collectors.

This Gutta is obtained in the same way as the former, but is worth only about \$15 per pikul. It differs in appearance from *G. taban* in being white, more spongy and less plastic; but it is often found adulterated with *G. jelutong*, which causes it to be brittle and almost useless. The trees of each species yield about 23 catties of Gutta each. They appear to be very slow-growing trees, and one 3 ft. in circumference at 3 ft. from the ground would doubtless prove on minute examination to be 30 years old. Sides of hills, on granite formations, in well drained spots, appear best suited to their requirements; and if their cultivation is attempted the best plan to adopt is certainly to procure ripe seeds and sow them singly in pots, made of a joint and one internode of a bamboo, and when ready for planting in permanent plantations, the bamboo should be split down on two sides and planted also; thus preventing any injury to the tap-root, of which they are very impatient. Large quantities of small plants are met with in the jungle, but they require very careful lifting on account of their long tap-root; any injury to which, even if they survive, they take a long time to recover. Of the Indiar Rubbers, or Caoutchoucs, I have met with two varieties in the Straits, *viz*, Gutta Rambong and Gutta Singgarip.

In my report to the local Government, I mentioned my belief that *G. Rambong* was procured from *Ficus elastica* and since then Mr. Low has written to me that I was correct in the supposition, as he had seen branches and young trees of the species in question; so that nothing more need be said here about *G. Rambong*, but the origin of Gutta-Singgarip is still uncertain. A large plant has been found in the jungle bordering the Botanical Gardens which yields Gutta exactly alike *G. Singgarip*, but both Dr. Beccari and myself failed to find a perfect flower as they had all been punctured by a minute insect, which in its attempts to get at the nectar destroyed the reproductive organs. Mr. Strettell of the Forest Dept. of British Burmah has discovered a new Caoutchouc producing tree in Pegu, which yields a product equal to the best Borneo Rubber and which Mr. Kurz determined to be *Chavanessia (Urceola) esculenta*.

*G. Jelutong*, which is often used to adulterate Gutta Taban and *G. Puteh*, is obtained from a species of *Alyxia*.